

How
and
Where
to Use

OAK
FLOORS



Belma Gilbert

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OAK FLOORING

HOW AND WHERE TO USE IT

IN presenting this booklet on Oak Flooring, particular thought has been taken to include nothing but practical advice for handling, laying, finishing and care of Oak Floors. Each detail from the bundle to the finished floor has been carefully considered, so that it may be easily understood by the layman and professional builder alike.

Nature has particularly favored this splendid and most substantial of all American hardwoods. Its very name stands for durability, while as a flooring, the natural beauty of the wood is unexcelled. In short, it combines "Endurance and Beauty."

There is an Oak Flooring grade for every flooring purpose—from public building to private home and from castle to cottage.

A well informed landlord knows that Oak Flooring commands a higher rental, and at the same time attracts a better class of tenants. The real estate dealer who builds to sell, knows that Oak Floors are his "one best bet." The really satisfied home owner in ninety instances out of one hundred is living on Oak Floors.

The most convincing endorsement as to the superior merits of Oak Flooring is found in its steadily increasing use for every type of building both private and public.

GRADING RULES

Quarter-Sawed



CLEAR—Shall have one face practically free of defects, except $\frac{3}{8}$ of an inch of bright sap; the question of color shall not be considered; lengths in this grade to be 2 feet and up, not to exceed 15% under 4 feet.

SAP CLEAR—Shall have one face practically free of defects, but will admit unlimited bright sap. The question of color shall not be considered. Lengths in this grade to be 1 foot and up.

SELECT—May contain bright sap, and will admit pinworm holes, slight imperfections in dressing, or a small tight knot, not to exceed 1 to every 3 feet in length; lengths to be 1 foot and up.

Plain Sawed



CLEAR—Shall have one face practically free of defects, except $\frac{3}{8}$ of an inch of bright sap; the question of color shall not be considered; lengths in this grade to be 2 feet and up, not to exceed 15% under 4 feet.

SELECT—May contain bright sap, and will admit pinworm holes, slight imperfections in dressing, or a small tight knot, not to exceed 1 to every 3 feet in length; lengths to be 1 foot and up.

No. 1 COMMON—Shall be of such nature as will make and lay a sound floor without cutting. Lengths 1 foot and up.

No. 2 COMMON—May contain every character of defects, but will lay a serviceable floor with some cutting. Lengths 1 foot and up.

STANDARD THICKNESSES AND WIDTHS

$\frac{13}{16}$ " thickness; widths $1\frac{1}{2}$ " face, 2" face and $2\frac{1}{4}$ " face.

$\frac{3}{8}$ " thickness; widths $1\frac{1}{2}$ " face and 2" face.

$\frac{1}{2}$ " thickness; widths $1\frac{1}{2}$ " face and 2" face.

ABOVE TONGUED AND GROOVED AND END MATCHED

$\frac{5}{16}$ " thickness; square edge, $1\frac{1}{2}$ " face, 2" face and special faces.

STANDARD MEASUREMENT

$\frac{13}{16}$ " thickness all faces, count $\frac{3}{4}$ " allowance for matching.

$\frac{3}{8}$ " thickness all faces, count $\frac{1}{2}$ " allowance for matching.

$\frac{1}{2}$ " thickness all faces, count $\frac{1}{2}$ " allowance for matching.

$\frac{5}{16}$ " thickness square edge all faces, count face count.

STANDARD WEIGHTS AND COUNTS OF OAK FLOORING

$\frac{13}{16}$ " x $2\frac{1}{4}$ " 2,000 lbs. per 1,000 ft. Counted 1" x 3"

$\frac{13}{16}$ " x 2" 1,900 lbs. per 1,000 ft. Counted 1" x $2\frac{3}{4}$ "

$\frac{13}{16}$ " x $1\frac{1}{2}$ " 1,800 lbs. per 1,000 ft. Counted 1" x $2\frac{1}{4}$ "

$\frac{3}{8}$ " x 2" 1,000 lbs. per 1,000 ft. Counted 1" x $2\frac{1}{2}$ "

$\frac{3}{8}$ " x $1\frac{1}{2}$ " 900 lbs. per 1,000 ft. Counted 1" x 2"

$\frac{1}{2}$ " x 2" 1,200 lbs. per 1,000 ft. Counted 1" x $2\frac{1}{2}$ "

$\frac{1}{2}$ " x $1\frac{1}{2}$ " 1,100 lbs. per 1,000 ft. Counted 1" x 2"

$\frac{5}{16}$ " x 2" 1,200 lbs. per 1,000 ft. Counted Face Count

$\frac{5}{16}$ " x $1\frac{1}{2}$ " 1,100 lbs. per 1,000 ft. Counted Face Count

THE USE OF DIFFERENT GRADES

CLEAR, QUARTER-SAWED, RED OR WHITE—High class residences, hotels, apartment houses and club houses.

SAP CLEAR }
SELECT } QUARTERED, RED OR WHITE

An economical substitute for Clear Quartered where a dark finish is desired. These grades make a floor equally as durable as the first grade.

CLEAR, PLAIN SAWED, RED OR WHITE—High class residences, hotels, apartment houses, clubs, churches and school buildings.

SELECT, PLAIN SAWED, RED OR WHITE — Medium priced residences, hotels and apartments, schools, churches, office buildings and stores.

No. 1 COMMON—Cheap dwellings, tenements, stores, high-class factories and manufacturers' buildings.

No. 2 COMMON—Warehouses, factories and cheap tenements.

WIDTHS

The $1\frac{1}{2}$ " face makes a better, more serviceable and handsome floor than any other width. The shading of the figure in the wood may be blended more harmoniously than where the wider strips are used.

The $1\frac{1}{2}$ " and $2\frac{1}{4}$ " faces are the widths more generally used in $\frac{1}{8}$ " thickness, and in $\frac{3}{8}$ " thickness, either $1\frac{1}{2}$ " or 2" face, as conditions demand.

HOW TO ARRIVE AT THE AMOUNT OF OAK FLOORING REQUIRED

To cover a certain space, figure the number of square feet, which means the width multiplied by the length, for instance, a room 12 feet wide by 15 feet long would contain twelve times fifteen or 180 square feet. Add to the square feet of surface to be covered the following percentages:

50% for	$1\frac{1}{8}$ " x $1\frac{1}{2}$ "
$37\frac{1}{2}$ % for	$1\frac{1}{8}$ " x 2"
$33\frac{1}{3}$ % for	$1\frac{1}{8}$ " x $2\frac{1}{4}$ "
$33\frac{1}{3}$ % for	$\frac{3}{8}$ " x $1\frac{1}{2}$ "
25% for	$\frac{3}{8}$ " x 2"
$33\frac{1}{3}$ % for	$\frac{1}{2}$ " x $1\frac{1}{2}$ "
25% for	$\frac{1}{2}$ " x 2"

The above figures are based on laying flooring straight across the room. Where there are bay windows, hearths and other projections, allowance should be made for additional flooring.

HANDLING OAK FLOORING

Oak Flooring leaves the factory in perfect condition. The lumber used in its manufacture has been air dried, kiln dried, cooled and then accurately milled. In short, it has been expertly handled and has become a valuable commodity, deserving of proper care in handling, both in distribution and consumption channels. Under no circumstances should it be roughly handled, nor its liability to damage through careless treatment disregarded. In the hands of the truckman, dealer and floor layer it should be valued for its condition and intrinsic worth. Otherwise unnecessary damage and loss will occur.

Before shipping, Oak Flooring is stored in dry, well ventilated warehouses. It is then shipped in box cars, and ordinarily reaches the dealer in good condition. It should not be unloaded in rainy weather and when the atmosphere is damp, each truck load should be covered with a tarpaulin from car to warehouse. It should never be piled in open sheds due to its tendency to absorb moisture, which causes swelling and impairment of accuracy of the mill work. Moreover, absorption of moisture will later cause shrinkage after laying, which leaves an open, unsightly joint in the finished floor. Dealers should exercise care in handling and storing Oak Flooring.

Oak Flooring should never be laid in a new building while the walls and plaster are damp; in fact, it should be the last equipment installed in the house or building. It is most important that brick, stone work, concrete and fire-proof filling be thoroughly dry before the flooring is laid.

In winter building, both residential and otherwise, flooring should never be laid without first heating the rooms. There is always dampness in cold atmosphere in new buildings. This invariably leads to trouble, both in laying the floor and the subsequent use.



$\frac{3}{8}$ " x $2\frac{1}{4}$ " Face
Oak Flooring—Actual Size



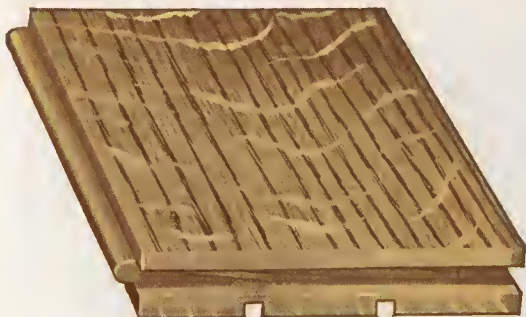
$\frac{1}{2}$ " x 2" Face
Oak Flooring—Actual Size



Laying an Oak Floor



"Blind"



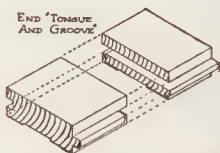
$\frac{3}{8}$ " x 2" Face
Oak Flooring—Actual Size



$\frac{5}{16}$ " x 2" Face-Square-Edge
Oak Flooring—Actual Size



Nailing an Oak Floor



End "Tongue and Groove"

When $\frac{3}{8}$ " Oak Flooring is laid during the summer months, which are usually warm and dry, with the first fall chill and dampness, homes should be heated at least once a week. This is particularly necessary with the thin flooring, due to its being subject to greater shrinkage on account of its light structure. Through prolonged wet cold spells, even in the summer, heat should be introduced in such rooms at least once a week.

The ideal method for securing the best results in new buildings is to defer laying floors until even the interior finishing and wall papering have been finished and become thoroughly dried.

LAYING OAK FLOORING

The laying of Oak Flooring is not difficult. Any first-class carpenter can make a good job. Some judgment and care are necessary in order to produce the best results.

A sub-floor should be used under the $\frac{1}{2}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{5}{8}$ " thicknesses.

The sub-floor in new houses should be reasonably dry and laid diagonally. Shiplap of 6" or 8" width is preferred. This should not be put down too tight and should be thoroughly dried and cleaned before the Oak Flooring is laid.

It is well to use damp proof paper between the Oak Flooring and the sub-floor. Do not use ordinary building paper or rosin sized paper. The quantity required is small, and the very best quality of damp proof stock should be used. Where sound proof results are desired a heavy deadening felt is recommended.

It is very important to leave about $\frac{1}{2}$ " space on all sides between the Oak Floors and the base board, to allow for expansion in event any dampness later gets into the Oak Flooring. This opening is covered by the quarter-round or base moulding.

Oak Flooring should be laid at right angles to the sub-floor in old houses. After laying and nailing three or four pieces use a short piece of Hardwood 2x4 placed against the tongue and drive it up. Care should be taken in driving up $\frac{3}{8}$ " flooring not to break the tongue, which is fragile. Also do not drive up excessively tight.

The nailing of Oak Flooring is very important. All tongued and grooved Oak Flooring should be blind nailed. The best floor made can be spoiled by the use of improper nails. We strongly recommend Cement Coated Nails, as this kind of nail has a holding power exceeding 100% over ordinary nails. For $\frac{1}{2}$ " use 8 penny Cement Coated Flooring brads. For $\frac{3}{8}$ " use 3 penny Cement Coated finishing nails. The maximum distance between nails should be:

For $\frac{1}{2}$ " thickness.....	16"
For $\frac{3}{8}$ " thickness.....	8"
For $\frac{1}{2}$ " thickness.....	12"

SCRAPING OAK FLOORS

After the Oak Flooring is laid and thoroughly swept, it should be expertly scraped to insure a perfect polished surface. Scraping can be done by one of the many types of power or hand scraping machines that is generally used by contractors and carpenters. Always scrape lengthwise of the wood and not across the grain. A floor after scraping should be thoroughly gone over with No. 1 $\frac{1}{2}$ sandpaper to obtain the best results in finishing. After this, the floor should again be swept clean, and the dust removed with a soft cloth. It is then ready for the finish.

FINISHING OAK FLOORS

The finishing of an Oak Floor is a most important feature, involving cost, color and finish desired. Per-

sonal taste and artistic or decorative effects are the guide for the floor finisher.

The "Clear" grade of Oak Flooring should have a natural Oak filler—color of Oak. For the "Select" and "Sap Clear" grades a light golden oak filler should be used, and after the floor is filled, it should be gone over with a little burnt umber mixed with turpentine to darken light streaks. This will make the "Select" and "Sap Clear" grades appear similar to the "Clear" grade, except that the color will be slightly darker. In filling the "No. 1 Common" grade, a dark golden oak filler should be employed, and the light streaks should be darkened in the same manner as the "Select" and "Sap Clear" grades. With a little care in finishing this grade, splendid results can be obtained.

FIRST—Treat the floor with a paste filler of desired tone, to fill up the pores and crevices. To thin the filler for application, one has a choice of using turpentine, benzine, wood alcohol or gasoline to get the right consistency. Never use a liquid filler. When the gloss has left the filler rub off with excelsior or cloth, rubbing against the grain of the wood. This will make a perfectly smooth and level surface. It keeps out dirt and forms a good foundation, which is the key-note of successful floors. Allow the filler twelve hours to set or dry. Then apply two coats of white shellac before applying the wax treatment. When varnish is to be used, give one coat of filler and one or two coats of varnish.

A wax or varnish finish may be used. The wax finish is preferred by many, due to economy and ease of renewing places that show wear. The renewing may be easily applied by housekeeper or servant.

WAX FINISH—The best method of applying the wax is to take cheesecloth and double it to get added thickness; then fold into a sort of bag. Put a handful of wax inside and go over the floor thoroughly. It will be found that the wax works through the meshes of the cheesecloth and gives an even coating

over the floor. This prevents waste and excessive wax in spots. After the floor has been gone over with the wax and allowed to dry about twenty minutes, it is ready for polishing. Rub to a polish with a weighted floor brush, first across the grain of the wood, then with it. (A clean, soft cloth may be used in place of the brush if desired); then a piece of woolen felt or carpet should be placed under the brush to give the finishing gloss. After waiting an hour, a second coat of wax should be applied in the same way and rubbed to a polish.

VARNISH FINISH—This is usually more expensive than the wax finish, but it gives a very hard surface, which at the same time is elastic. One or two coats should be applied after the application of the paste filler. Any of the standard Hardwood Flooring Varnishes will give good results.

FLOOR OIL FINISH—When a high class finish is not desired an economical finish may be had by the use of light flooring oil, made expressly for this purpose by many paint and varnish houses and oil makers; it serves as a filler as well as a finish, and is particularly recommended for Oak Flooring in public institutions, office buildings and stores. This oil keeps the dust from rising and preserves the floor.

HOW TO CARE FOR OAK FLOORS

There are several preparations put up by varnish and wax manufacturers which give excellent results for cleaning and the care of OAK FLOORS, that may be bought at any department, hardware, drug or paint store.

Never use water, oil, kerosene, turpentine, soap, or any other cleaning agents, except as follows:

SHELLAC FINISH—If water has been spilled upon the floor, turning it white in places, moisten a soft cloth with a little denatured alcohol and lightly rub the spots, which should immediately disappear. Do not repeat this operation too often, however, or the finish

will be entirely removed. Shellacked floors sometimes take on a clouded or grayish appearance due to dampness in the air. This condition can usually be greatly improved by the same treatment as above. If the finish has become so soiled that it is desirable to remove it entirely, first scrub the floor with a standard brand of varnish remover (this is preferable to alcohol, as it does not evaporate as rapidly and insures sufficient time to remove the Shellac, thus allowing a smooth even tone) and then bleach it with oxalic acid (one tablespoon to one gallon of water)—never use lye, as it turns the wood black and ruins the surface permanently. After all moisture has evaporated the original finish may be applied.

VARNISH FINISH—If the finish has become badly worn, thoroughly scrub it with a brush, a good cleanser and water (never flood the floor). After it has dried out, apply a thin coat of varnish; or in event that time cannot be allowed for the varnish to dry, wax may be substituted.

WAX FINISH—Waxed floors should be dusted with a broom covered with canton flannel. Keep a can of wax on hand, and should the finish become worn in the doorways or elsewhere, apply a thin coat, rubbing well into the wood. Allow the wax to dry for one hour and then polish thoroughly. Before rewaxing the floor, scrub it thoroughly with turpentine and a piece of cheesecloth.

ECONOMICAL USE OF OAK FLOORING

With the wide use of rugs in both homes and offices, an economical method is to have the center portion of the room laid with Oak Flooring of a less expensive grade, employing a better grade in the border. When the rug is laid, the visible portion of the floor will then be of the very best appearance, at less initial cost. A room measuring 10x12' for example, may have a border 2 feet wide of "Clear" (first quality), either Plain or Quartered; and in the center section, measuring about 6x8', the Select Plain grade can be

used. This procedure represents a saving of 15 to 40% as against using all of the best grade. Care in finishing the Select Grade will make it closely resemble the Clear. This economical method is a common practice among experienced builders. Thin flooring measuring $\frac{3}{8}$ " thick by $1\frac{1}{2}$ " or 2" face can be laid over old floors in old homes and over unfinished sub-floors in new homes at minimum cost. This type of flooring requires less of a cash outlay than carpets or many other types of wood floors and gives satisfactory service.

PROFITABLE WORK FOR CARPENTERS

Carpenters, contractors and floor layers find it profitable, during slack periods, when outside work is quiet, to solicit jobs in old homes for laying the $\frac{3}{8}$ " Oak Flooring over worn floors. In addition to being profitable such work is interesting. Artistic designs may be made by selecting strips for figure. The winter season is preferable for laying this thin stock over old floors, which are then thoroughly dry and in good condition to receive it. It is important that old floors be level before installing Oak Floors.



